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REPORTERS FOR THE INSECT PEST SURVEY

United States	The Entomologists of the Bureau of Entomology and Plant Quarantine, U. S. Department of Agriculture
Alabama	Dr. J. M. Robinson, Alabama Polytechnic Institute, Auburn
Arizona	Mr. C. D. Lebert, P. O. Box 2006, Phoenix
Arkansas	Dr. W. J. Baerg, University of Arkansas, Fayetteville Mr. Dwight Isely, University of Arkansas, Fayetteville
California	Dr. W. B. Herms, University of California, Berkeley Prof. E. O. Essig, University of California, Berkeley Mr. S. Lockwood, Bureau of Plant Quarantine and Control, Department of Agriculture, Sacramento Mr. H. S. Smith, Citrus Experiment Station, Riverside Mr. H. J. Ryan, County Agricultural Building, Los Angeles Mr. D. B. Mackie, Department of Agriculture, Sacramento Mr. M. L. Jones, Department of Agriculture, Sacramento Mr. A. E. Michelbacher, University of California, Berkeley Dr. A. W. Morrill, 815 Hill Street, Los Angeles Mr. L. M. Smith, University of California, Deciduous Fruit Field Station, Route 1, Box 232, San Jose Mr. F. H. Wymore, College of Agriculture, Davis Mr. G. S. Hensill, University of California, Berkeley Mr. J. F. Lamiman, University of California, Berkeley
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Florida	Dr. Wilmon Newell, Agricultural Experiment Station, Gainesville Mr. J.R. Watson, Agricultural Experiment Station, Gainesville Dr. E. W. Berger, State Plant Board, Gainesville Dr. H. T. Fernald, 707 East Concord Avenue, Orlando

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Nevada	Mr. G. G. Schweis, P. O. Box 1027, Reno
New Hampshire	Mr. L. C. Glover, Agricultural Experiment Station, Durham

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Oregon	Dr. D. C. Mote, State Agricultural College, Corvallis
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Virginia	Dr. W. J. Schoene, Virginia Agricultural Experiment Station, Blacksburg Dr. H. G. Walker, Virginia Truck Experiment Station, Norfolk Mr. C. R. Willey, Division of Plant Industry, 1112 State Office Building, Richmond
Washington	Mr. M. H. Hatch, University of Washington, Seattle Prof. R. L. Webster, State College of Washington, Pullman
West Virginia	Dr. L. M. Peairs, West Virginia University, Morgantown Prof. W. E. Rumsey, Agricultural Experiment Station, Morgantown
Wisconsin	Mr. E. L. Chambers, State Department of Agriculture, Madison Dr. C. L. Fluke, University of Wisconsin, Madison
Wyoming	Mr. C. L. Corkins, Office of State Entomologist, Powell
Puerto Rico	Mr. G. N. Wolcott, Insular Experiment Station, Rio Piedras
Hawaii	Mr. O. H. Swezey, Hawaiian Sugar Planters' Association, Honolulu
Mexico	Dr. Alfonso Dampf, Avenida Insurgentes 171, San Jacinto, Mexico, D. F.
Costa Rica	Dr. C. H. Ballou, Apartado 1368, San Jose
Brazil	Mr. E. J. Hambleton, Instutito Biologico de Defesa Agricola, Sao Paulo
Egypt	Mr. A. H. Rosenfeld, Botanical and Plant Breeding Section, Ministry of Agriculture, El Giza

THE MORE IMPORTANT RECORDS FOR JANUARY AND FEBRUARY 1935

We have inaugurated a new feature in the Bulletin by issuing more detailed survey papers as supplementary numbers to the current numbers. These can be published at any time during the year and will appear as supplements to the last published number. We invite our reporters to avail themselves of this opportunity of publishing results of detailed surveys which would not otherwise be placed on permanent record.

This year the Survey is making a particular effort to round out its information on the biological distribution of the several species of the genus Phyllophaga, and will appreciate any assistance its reporters can give in sending in beetles, with definite records as to locality and date of collection.

In the early summer of 1935 Brood IX of the periodical cicada is scheduled to appear in the eastern Appalachian region, the center of the Brood being in western Virginia and southern West Virginia. The 13-year race this year is represented by Brood XXI which should appear in the South Atlantic and Gulf States, principally in northwestern Florida, western Alabama, and eastern Mississippi. More detailed information will be given in a supplement to the Survey Bulletin which will appear later in the season.

The army cutworm was quite prevalent during late December and February in Nebraska and Kansas.

Late winter observations indicate that the chinch bug suffered but little winter mortality in Kansas, about 10 percent mortality in Indiana, and a similar percentage of mortality in Illinois. This mortality, however, is not sufficient at any point materially to interfere with the forecast of heavy populations given by the fall surveys.

The green bug was observed early in February in considerable numbers in the State of Coahuila in Mexico.

The pea aphid was extremely scarce on vetch during January in the Willamette Valley of Oregon, the populations being very decidedly lower than they were in the early part of 1934.

The sugarcane borer suffered very heavy mortality as the result of the severe freeze which occurred during the third week in January in Louisiana. Examinations made during the third week in February indicated that the mortality averaged approximately 90 percent of the overwintering larvae. A similar heavy mortality following very severe freezing is reported from the Beaumont area in Texas, where the mortality reached from 80 to 96 percent as compared with a mortality of 14 percent in the winter of 1933-34.

The San Jose scale was apparently not severely injured by the winter conditions in Illinois. This insect was reported as very abundant in the Gulf region.

The California red scale was found at Phoenix, Ariz.

The severe frost of December so interfered with new growth on citrus in Florida that the citrus aphid was reduced practically to negligible numbers.

The vegetable weevil was considerably less prevalent in Mississippi than it has been for several years.

The tomato pinworm was observed during the third week in February attacking tomatoes at San Juan Capistrano, Calif.

Rather severe damage to garden peas by the seed corn maggot was reported in Charleston, S. C.

Overwintering forms of the diamond-back moth are about 90 percent parasitized by Angitia hellulae Vier. in the Norfolk area of Virginia.

The strawberry root aphid was very prevalent late in February in Virginia and Louisiana, and red spiders were very prevalent on strawberry in Virginia and Mississippi.

Emergence of canker worms began during the first week in January. Both species are very prevalent.

Two additional infestations of the gypsy moth have been located in Pennsylvania, one in Bear Creek Township, Luzerne County, and the other in Tobyhanna Township, Monroe County.

During early December light infestations of the beech scale were found at six places near Scarsdale, N. Y., this being the first time that the beech scale has been reported from New York.

The infestation of dried fruit at storage plants in the Sacramento Valley last fall by the fig moth was said to have been the heaviest ever experienced in this region.

G E N E R A L F E E D E R S

GRASSHOPPERS (Acrididae)

Virginia. H. G. Walker (February 25): Young grasshopper nymphs were active in the field on the Eastern Shore, February 20-22.

Louisiana. W. E. Hinds (February 25): A few grasshopper eggs have hatched.

MORMON CRICKET (Anabrus simplex Hald.)

Montana. A. L. Strand (February 22): Plans are being perfected for controlling Mormon crickets in eight counties in western Montana. With the exception of Carbon County, the infested area is not expected to be very large in any of the counties.

ARMY CUTWORM (Chorizagrotis auxiliaris Grote)

Nebraska. M. H. Swenk (February 19): The army cutworm was reported as quite prevalent during the first week in February in yards in Hayes County.

Kansas. H. R. Bryson (February 23): Army cutworms are being found in the vicinity of Manhattan in the usual abundance.

WIREWORMS (Elateridae)

Washington. H. P. Lanchester (February 21): No winter mortality of larvae and adults of the sugar beet wireworm (Pheletes californicus Mann.) is apparent in Lowden. An investigation on one farm shows a heavy survival of larvae from last year's brood. This will maintain the infestation which averages 1,100,000 per acre. An attempt to obtain a stand of alfalfa has proved an absolute failure owing to heavy larval feeding weakening the young plants. No encouragement can be offered the farmer for future reductions of injury without chemical treatment of the soil. As usual, no winter mortality has resulted to either adults or larvae of the Pacific coast wireworm (P. camus Lec.) in the Walla Walla area. An average of 350,000 wireworms per acre has been estimated. This population prevents the growing of many spring-planted crops and virtually limits the area to asparagus, rhubarb, tomatoes, and crops planted in midsummer or late in the fall. Present indications are for the usual heavy injury to all plants which are in a susceptible stage.

CRANE FLIES (Tipulidae)

Louisiana. W. E. Hinds (February 25): Crane fly adults have been flying in quite large numbers during the past two weeks.

SAY'S PLANT BUG (Chlorochroa sayi Stahl)

Montana. A. L. Strand (February 22): This species was found in very great numbers in north-central Montana during January and February. So far a great percentage of the hibernating adults are coming through the winter successfully. A considerable proportion of those brought into the laboratory, however, are parasitized by dipterous larvae.

C E R E A L A N D F O R A G E - C R O P I N S E C T S

WHEAT

CHINCH BUG (Blissus leucopterus Say)

Indiana. C. Benton (February 13): Chinch bugs hibernating in seven different kinds of bunchyor tufted grasses taken near La Fayette on January 7 showed 2 percent mortality of 1,384 individuals. On February 1 samples from the same grasses showed 10 percent mortality of 253 bugs. No significant difference in mortality in different kinds of grasses was apparent on either date.

Illinois. W. P. Flint (February 20): Recent counts show a higher winter mortality of chinch bugs than usual. Apparently numbers of bugs died after going into winter quarters, possibly from infection of the white fungus disease. The prevailing temperature conditions would not be expected to kill any numbers of bugs.

Iowa. H. E. Jaques (February 18): Chinch bugs are reported in great abundance from many localities.

Kansas. H. R. Bryson (February 23): Examinations of bunch grass at Manhattan indicate about the usual abundance of chinch bugs. No marked mortality has occurred during the winter.

GREEN BUG (Toxoptera graminum Rond.)

Mexico. C. S. Rude (February 5): Examination in wheat fields near Chavez, Coahuila, showed the presence of the green bug in considerable numbers. Several species of ladybeetles were also present and seemed to be holding the green bug more or less in check. In February and March of 1934 the green bug did considerable damage to the wheat in this area.

CORN

CORN LEAF APHID (Aphis maidis Fitch)

Louisiana. J. W. Ingram (February 20): This aphid was found on Paspalum urvillei until the low temperatures of January 20-22. It was found in fairly large numbers feeding on an undetermined grass at Cut Off on February 8.

VETCH

PEA APHID (Illinoia pisi Kalt.)

Kansas. H. R. Bryson (February 23): Unable to find pea aphids in alfalfa fields to date.

Oregon. L. P. Rockwood and T. R. Chamberlin (February 9): Early fall-sown vetch near Farmington averaged less than one aphid per 100 sweeps on January 29. In 1934, near the same date and in the same section, vetch averaged more than 50 per 100 sweeps. Tall volunteer vetch averaged from 12 to 16 per 100 sweeps, whereas comparable vetch in 1934 averaged 200 per 100 sweeps. Very few fields of vetch in Washington County were seeded early enough in the fall of 1934 to become infested by viviparous forms, whereas there were many infested early fall-sown fields in 1933. On alfalfa and Scotch broom we have been unable as yet to find any aphids. In other years hatching from eggs on these hosts had taken place by this time. Several hibernation caches of coccinellid beetles, Hippodamia sinuata spuria Lec., H. quinquesignata obliqua Csy., and H. convergens Guer. have been observed. These predacious beetles are more abundant in these caches than in any year since the winter of 1930-31; they were very scarce in the spring of 1934. The indications are that there will be little aphid damage to vetch in 1935.

GARDEN SLUG (Agriolimax agrestis L.)

Oregon. L. P. Rockwood (February 9): Considerable damage to hairy vetch by the garden slug has been reported in the Willamette Valley. A few damaged fields have been seen. The damage appeared to have been done by the feeding of slugs on the young vetch seedlings. In many cases these seedlings had been entirely consumed. Vetch seedlings were eaten first, then weed seedlings; oats were eaten but little. The damage was most extensive in fields where the vetch had been disked in; vetch on plowed land was damaged but little.

SUGARCANE

SUGARCANE BORER (Diatraea saccharalis Fab.)

Louisiana. W. E. Hinds (February 25): Larvae in hibernation in cornstalks show a decided increase in mortality following the second severe cold spell of the winter. The first severe cold snap occurred about December 12, with minimum temperatures of from 19° to 22° F. at Baton Rouge and vicinity. On January 22 the minimum fell to from 17° to 19°. We found only 15 percent of the larvae dead in old cornstalks, between January 15-22. From February 15-22, we found the mortality averaging around 90 percent. This indicates an increase of about 75 percent in mortality, which may be attributed to the drop to 17° to 19°.

Texas. A. I. Balzer (February 9): Examinations of corn and Egyptian wheat in southeastern Texas to this date show a winter mortality in borers of from 80 to 96 percent as compared with a mortality of 14.3 percent in the winter of 1933-34. The minimum temperature at Beaumont this winter was 17° F., while in 1933-34 it was 24°.

SUGARCANE BEETLE (Euetheola rugiceps Lec.)

Louisiana. W. E. Hinds (February 25): Injury on the rootstalks of cane, by the fall feeding of adults, is commonly found at this time. The beetles have not yet started their spring activity.

SUGARCANE ROOTSTOCK WEEVIL (Anacentrinus subnudus Buchanan)

Louisiana. J. W. Ingram, E. K. Bynum, and W. E. Haley (February 16): Larvae and pupae were found in small numbers in seed cane and cane stubble banked for spring plantings. Heavy infestations have been found in cane stubble in some fields.

W. E. Hinds (February 25): Sugarcane rootstalk weevils, Anacentrinus spp., were present in abundance and in all stages before and after the January freeze.

RUSTY PLUM APHID (Hysteroneura setariae Thos.)

Louisiana. J. W. Ingram (February 20): The brown sugarcane aphid (H. setariae) has been found feeding on Andropogon sp. throughout the winter in spite of the unusually cold weather.

GRAY SUGARCANE MEALYBUG (Pseudococcus bonensis Kuw.)

Mississippi. C. Lyle (February 23): A light infestation on sugarcane was found at Meridian in November. It is now believed that the infestation has been practically eradicated.

F R U I T I N S E C T S

APPLE

FLAT-HEADED APPLE TREE BORER (Chrysobothris femorata Oliv.)

Illinois. W. P. Flint (February 20): Many reports are being received of damage in orchards. Much of the damage was not noticed until the trees were pruned during the winter. There have also been numerous reports of injury to shade trees.

WOOLLY APPLE APHID (Eriosoma lanigerum Hausm.)

Mississippi. D. W. Grimes (February 22): The woolly apple aphid is moderately abundant on apple at Sallis.

SAN JOSE SCALE (Aspidiotus perniciosus Comst.)

Illinois. W. P. Flint (February 20): The San Jose scale survived the winter in more than normal numbers. To date only a very small percentage of the scale has been killed.

Alabama. J. M. Robinson (February 14): The San Jose scale is moderately abundant on fruit trees.

Mississippi. C. Lyle (February 23): State Plant Board inspectors and correspondents located in all sections of the State report medium to severe infestations on unsprayed peach, apple, and plum trees.

PEACH

PEACH BORER (Aegeria exitiosa Say)

Mississippi. C. Lyle (February 23): During the fall and winter many complaints regarding injury to peach trees were received from correspondents in various sections of the State. Inspector L. J. Goodgame at Aberdeen states that the borer can be found in almost any untreated tree and that he has taken infested nursery stock from shipments of one-year-old trees. A correspondent at Magnolia, Pike County, sent us specimens which had been taken from cherry-laurel plants.

D. W. Grimes (February 22): The peach borer is moderately abundant on peach at Durant.

BLUEBERRY

ROOT WEEVILS (Brachyrhinus spp.)

Washington. W. W. Baker and J. Wilcox (December 1934): An appeal for aid was received from a blueberry grower near Bellevue. When his field was visited in November, the berries were found to be heavily infested with B. ovatus L. and B. sulcatus Fab.

BLACKBERRY

A BERRY MITE (Eriophyes essigi Hassan)

Washington. J. Wilcox and W. W. Baker (December 1934): A survey was conducted during October and November. New infestations were found on wild and cultivated blackberries in Whatcom County southward to Pierce and Thurston Counties.

CITRUS

FRUIT FLIES (Anastrepha spp.)

Texas. M. H. Ford (January): A total of 142 adults of A. ludens Loew were trapped on 86 premises in the lower Rio Grande Valley during

January. This indicates a considerably larger population than during December 1934. In addition 18 A. serpentina Wied., 102 A. fraterculus auct. not Wied., 318 A. pallens Coq., 3 A. striata Schin., and 31 Toxotrypana curvicauda Gerst. were trapped. One hundred and sixty undetermined fruit flies were also collected.

CALIFORNIA RED SCALE (Chrysomphalus aurantii Mask.)

Arizona. B. L. Boyden (January 21): "I saw the State Entomologist in Phoenix and he told me that a scouting inspection of ornamentals there disclosed several plants (euonymus and rose were mentioned) infested with red scale. The infested plants are being dug out and destroyed and the surrounding plants sprayed. He was of the opinion that the scale was brought in on nursery stock from California. It has not spread to the citrus plantings."

PURPLE SCALE (Lepidosaphes beckii Newm.)

Mississippi. H. Gladney (February 21): Heavy infestations have been reported in some citrus groves in Harrison County. The weakened condition caused by these insects and the low temperature in January killed a great many trees.

GREEN CITRUS APHID (Aphis spiraecola Patch)

Florida. J. R. Watson (February 27): Owing to the cold weather of December and the continued drought, there has been very little new growth on citrus this past winter, and the citrus aphid has been almost starved out. A few are appearing since the new growth has started on citrus, but it does not seem probable that there will be a heavy infestation.

CITRUS WHITEFLY (Dialeurodes citri Riley and How.)

Mississippi. D. W. Grimes (February 22): The whitefly is moderately abundant on citrus at Bentonia.

Louisiana. W. E. Hinds (February 25): White flies on citrus and on some privets appear to have received a setback by the freeze, which resulted in the shedding of foliage on many of these host trees. However, the cold did not defoliate nearly all host plants and a normal infestation may develop later in the season.

A TERMITE (Kalotermes simplicicornis Banks.)

Texas. S. E. Jones (December 1934): This termite was found causing injury to satsuma orange trees at Winterhaven during December.

CITRUS RUST MITE (Phyllocoptes oleivorus Ashm.)

California. H. J. Ryan (February 27): The rust mite, P. oleivorus, is showing up in a slight infestation on citrus in the North Whittier

Heights district. This is the time of year that infestations build up rapidly.

SPIDER MITES (Tetranychus spp.)

Florida. J. R. Watson (February 27): The six-spotted mite and the purple mite are at the present time rather common on citrus in the southern part of the State.

Mississippi. H. Gladney (February 21): Some citrus groves at Ocean Springs are rather heavily infested by T. telarius L. The trees were partly or completely defoliated by the cold weather of January and the spiders are clustered on the branches.

AVOCADO

SHOT-HOLE BORER (Scolytus rugulosus Ratz.)

Florida. J. R. Watson (February 27): Shot-hole borers are damaging avocado and other trees which were injured by the freeze of December. In many instances they will probably kill seriously injured trees.

T R U C K - C R O P I N S E C T S

VEGETABLE WEEVIL (Listroderes obliquus Gyll.)

Alabama. J. M. Robinson (February 14): The vegetable weevil has been active in the southern half of the State since November.

Mississippi. C. Lyle (February 23): Inspector M. L. Grimes reports that he observed injury to carrots and turnips at Meridian recently. However, the injury was light and the weevils have been less abundant in that locality during the winter than for several years.

D. W. Grimes (February 23): Injury is severe on turnips and slight on onions at Sallis, Carthage, Bentonia, and West.

H. Gladney (February 21): Observed doing from medium to serious damage to turnips in Jackson County during January and February.

J. P. Kislanko (February 21): The vegetable weevil caused severe injury to turnip patches during December and January in the vicinity of Purvis and other places in Lamar County.

Louisiana. W. E. Hinds (February 25): Vegetable weevils have been active and abundant for weeks and do not appear to have been set back at all by the cold.

CUCUMBER BEETLES (Diabrotica spp.)

Virginia. H. G. Walker (February 25): Twelve-spotted cucumber beetles (D. duodecimpunctata Fab.) were observed feeding in kale fields at Norfolk on warm days in December, January, and February.

Florida. J. R. Watson (February 27): D. balteata Lec. has been taken at Monticello, where it was severely injuring Chinese cabbage.

Alabama. J. M. Robinson (February 14): The banded bean beetle (D. balteata) developed in large numbers during the fall of 1934, but has been less numerous since the freezing weather.

Mississippi. H. Gladney (February 21): Adults of D. 12-punctata are somewhat plentiful and are doing some damage to vegetables in Harrison County.

J. P. Kislanko (February 21): Twelve-spotted and banded cucumber beetles were observed to be quite common during the winter months, causing some trouble to truck-crop growers in Stone County.

Louisiana. W. E. Hinds (February 25): D. vittata Fab. adults are active in small numbers. D. 12-punctata adults are probably less abundant than usual at this time of year. No D. balteata has been seen yet.

Texas. J. N. Roney (January): D. 12-punctata and D. balteata were found feeding on turnips, mustard, cabbage, and beets during December 1934 and January 1935 at Dickinson.

APHIDS (Aphiidae)

Virginia. H. G. Walker (February 25): The turnip aphid (Rhopalosiphum pseudobrassicae Davis) and the spinach aphid (Myzus persicae Sulz.) are very scarce at present at Norfolk.

Louisiana. W. E. Hinds (February 25): R. pseudobrassicae is very abundant on turnip.

TOMATO

TOMATO PINWORM (Gnorimoschema lycopersicella Busck)

California. J. C. Elmore (February): On February 18 moths were observed flying up from dead tomato plants at San Juan Capistrano. Larvae were present but scarce on small tomato plants in an outdoor seed bed. Larvae believed to be of this species were found mining and folding the leaves of Solanum umbelliferum at Laguna Beach on February 19.

A PENTATOMID (Arvelius albopunctatus DeG.)

Texas. S. E. Jones (November 1934): This pentatomid was found feeding on tomatoes at Winterhaven in November. The injury consisted of punctures

in the tomato fruit, causing it to develop a disagreeable flavor. The adults are somewhat gregarious; a relatively light infestation may destroy a crop.

BEANS

MEXICAN BEAN BEETLE (Epilachna corrupta Muls.)

Maine. N. F. Howard (February 28): In a letter dated October 27, 1934, J. H. Hawkins gives Milo, Piscataquis County, as a record of the spread of the Mexican bean beetle.

Ohio. N. F. Howard (February 21): The results of examining beetles in hibernation at Columbus indicate that the survival will be very much lower than during the preceding two years and it may approach the low point reached several years ago.

New Mexico. R. L. Wallis (February 29): At present the survival of the Mexican bean beetle in the Estancia Valley is higher than for the past two years. Examination of beetles in hibernation cages February 18 shows 55.17 percent of the beetles still alive. Counts showed 26.08 percent at the same time in 1934, 24.08 percent in 1933, and 78.59 percent in 1932.

PEAS

PEA APHID (Illinoia pisi Kalt.)

California. R. E. Campbell (February 21): All pea districts from Imperial to Salinas show some infestation, but in only a few fields is it heavy enough to cause damage.

SEED CORN MAGGOT (Hylemyia cilicrura Rond.)

South Carolina. C. O. Bare (January 8): The seed corn maggot was found doing considerable damage to garden peas at the Charleston Truck Experiment Station. The peas had been planted at a rather shallow depth in land containing decaying organic matter. In an approximately average situation in the field, a count showed 80 of 150 young plants, or 53 percent, destroyed by maggots in the cotyledons.

CABBAGE

DIAMOND-BACK MOTH (Plutella maculipennis Curt.)

Virginia. H. G. Walker (February 25): Collection of material at Norfolk from several fields of kale and collards which were severely damaged last fall showed that over 90 percent of the overwintering forms are parasitized by Angitia hellulae Vier. (identified by R. A. Cushman). One species of hyperparasite has been reared from the material. Although the larvae of this moth normally pupate on the plant near where they feed, on the leaves and along the midribs, during the cold

weather they were crawling down and pupating in the dead leaves on the ground beneath the plant. Both parasites and moths were flying actively about infested kale fields on February 23.

Texas. S. W. Clark, S. E. Jones, and J. N. Roney (December 1934): The diamond-back moth was injurious to cabbage during December at Weslaco, Winterhaven, and Dickinson.

CABBAGE LOOPER (Autographa brassicae Riley)

Texas. S. W. Clark, S. E. Jones, and J. N. Roney (December 1934): A. brassicae was injurious to cabbage during December at Weslaco, Winterhaven, and Dickinson.

IMPORTED CABBAGE WORM (Ascia rapae L.)

Louisiana. W. E. Hinds (February 25): Cabbage butterflies are scarce but active, and eggs and young larvae are quite easily found. Loopers, Autographa brassicae Riley, and other species are not active yet.

GREENHOUSE LEAF TIER (Phlyctaenia rubigalis Guen.)

South Carolina. C. O. Bare (December 1934): The greenhouse leaf tier was found feeding on cabbage at Charleston from November 7 to December 10. This was my first observation of this insect feeding on any crop at the Truck Experiment Station. It was most numerous on the undersides of the lower leaves but hardly abundant enough to be of economic importance. From December 6-10, the apparent time of greatest abundance, there was an average of approximately .03 larva per plant. Sometimes several larvae occurred on the same plant. (Det. by C. Heinrich)

CABBAGE APHID (Brevicoryne brassicae L.)

Virginia. H. G. Walker (February 25): The cabbage aphid is very scarce at Norfolk.

Mississippi. H. Gladney (February 21): Infestations of the cabbage aphid were noted on cabbage and collards in scattered localities in Jackson and Harrison Counties.

Louisiana. W. E. Hinds (February 25): Aphids are abundant on cabbage.

STRAWBERRY

STRAWBERRY ROOT APHID (Aphis forbesi Weed)

Virginia. H. G. Walker (February 25): Eggs, just beginning to hatch, were rather abundant in many of the fields on the Eastern Shore. This pest was also found in some of the strawberry fields in Norfolk and Princess Anne Counties.

Louisiana. W. E. Hinds (February 25): Aphids are reported on the roots of strawberry plants at Baton Rouge. Ants in abundance are attending the aphids.

A LYGAEID (Orthaea bilobata Say)

Texas. S. E. Jones (1934): This species was found in many strawberry fields near Winterhaven during 1934. In some instances it caused severe damage to the fruit.

COMMON RED SPIDER (Tetranychus telarius L.)

Virginia. H. G. Walker (February 25): A survey of strawberry fields on the Eastern Shore on February 20 showed that red spiders were very abundant in some fields, whereas in others they were very scarce or entirely absent. Red spiders were found in some of the strawberry fields in Norfolk and Princess Anne Counties.

Mississippi. C. Lyle (February 23): On February 11 a grower at Bay Saint Louis reported a medium infestation on his strawberry plants.

PEPPER

PEPPER WEEVIL (Anthonomus eugenii Cano)

California. J. C. Elmore (February 19): At San Juan Capistrano from 6 to 29 adult weevils per plant were found on occasional pepper plants left standing after a field had been disked. There were immature stages in the green pods. Seventy-one adult weevils were taken from 10 nightshade plants.

SWEETPOTATO

SWEETPOTATO WEEVIL (Cylas formicarius Fab.)

Mississippi. C. Lyle (February 25): A small infestation of the sweetpotato weevil was found in Greene County during the fall; steps were immediately taken to clean it up.

BEETS

HAWAIIAN BEET WEBWORM (Hymenia fascialis Cram.)

Texas. S. W. Clark and J. N. Roney (November 1934): This webworm caused severe injury to beets at Weslaco and Dickinson during November.

F O R E S T A N D S H A D E - T R E E I N S E C T S

CANKER WORMS (Geometridae)

Kansas. H. R. Bryson (February 23): Alsophila pometaria Harr. and Paleacrita vernata Peck are very abundant. Emergence began the first week in January and large numbers had been caught on the bands by February 5.

GYPSY MOTH (Porthetria dispar L.)

Vermont. H. L. Bailey (February 28): We have found an unusually heavy gypsy moth infestation in the town of Newbury in Orange County. About 2,500 egg masses were taken in an area about three-fourths of a mile square. There was evidently a very heavy hatch of the caterpillars last spring notwithstanding the extreme cold of the preceding winter. This is outside the area in Vermont which may be considered as generally infested.

Pennsylvania. A. F. Burgess (January 22): Intensive scouting work was done in the vicinity of an assembling cage in Tobyhanna Township in Monroe County, where a male moth was taken last summer. As a result, 477 acres of woodland and one-fourth mile of open country along roadsides were examined; and two additional infestations were found, one in Bear Creek Township, Luzerne County, the other in Tobyhanna Township.

BEECH

BEECH SCALE (Cryptococcus fagi Baer.)

New York. M. W. Blackman (January 23): Infestations of the beech scale have been found in Westchester County at Scarsdale, and immediate vicinity. On December 11 and 12, R. C. Brown and C. L. Griswold, of the Melrose Highlands laboratory, made a rough survey, examining beech trees along the principal parkways. Light infestations were found at six places within a radius of 6 miles from Scarsdale. This is the first time the scale has been reported from New York State.

ELM

EUROPEAN ELM SCALE (Gossyparia spuria Mod.)

Idaho. C. Wakeland (February 20): The European elm scale, which has become established in Moscow during the last few years, increased very rapidly last year following the mild winter of 1933-34. We have been making examinations recently to determine the effect of cold weather on this insect in this vicinity and find that the average percentage of survival is 0.16. All the living scales are under old scale bodies, pieces of bark, and in other protected places. The lowest temperature was -19° F.

LARCH

LARCH CASE BEARER (Coleophora laricella Hbn.)

New York. R. E. Horsey (February 23): Caterpillars, alive in their cases,

were found today on Larix dahurca at Rochester. Of several species of larch examined last year, this species was the heaviest infested. The trees were thoroughly sprayed at the time, but evidently some of the insects escaped to feed this year when the leaves start to grow. This insect is becoming a serious pest around Rochester.

MAPLE

GLOOMY SCALE (Chrysomphalus tenebricosus Comst.)

West Virginia. F. W. Craig (December 19): The gloomy scale is prevalent on red maple in Charleston. I first noticed it three summers ago when we received many reports that maple trees were dying, apparently from the attack of this scale. All trees visited were soft maples. Last summer I heard no complaint and judging from the season's growth on a few trees I inferred that the winter of 1933-34 killed a great many of the scales. The insect was not eradicated as the twigs sent you indicate. (Det. H. Morrison.)

North Carolina. Z. P. Metcalf (February 15): The gloomy scale seems to be more abundant on maple than for the past several years.

Mississippi. D. W. Grimes (February 22): Gloomy scale is moderately abundant on maple at Bentonia.

OAK

OBSCURE SCALE (Chrysomphalus obscurus Comst.)

Mississippi. C. Lyle (February 23): Medium infestations on oak leaves have been reported during the past several weeks from Kosciusko, Meridian, and Ocean Springs.

PINE

WESTERN PINE BEETLE (Dendroctonus brevicomis Lec.)

California. M. W. Blackman (February 13): J. M. Miller reports that field work on the 1934 survey, to locate areas of bark beetle infestations, was completed by November 15. The more important timber-producing areas in eight national forests extending from central to northeastern California were covered. Aggressive infestations of the western pine beetle prevail throughout northeastern California, being particularly severe in areas where the beetle populations had suffered a setback from the extremely low temperatures of December 1932. The effect of the high mortality, resulting from the freeze, on the course of the infestation was evident only during the season immediately following. Recovery of the beetle populations was evident toward the close of the 1933 season and in 1934 the upward tendency was continued showing marked acceleration in places. One trend exhibited by current infestations is that of extension of aggressive attacks to valuable timber stands that had not suffered severe losses until this year.

PINE NEEDLE MINER (Recurvaria milleri Busck)

California. J. M. Miller (January 2): Surveys conducted during September 1934 have shown that the needle miner greatly increased the extent of the infested areas in the high Tuolumne watersheds in the Yosemite National Park during the flight season of 1933. These new epidemics will undoubtedly extend the areas of dead lodgepole pine forests within the park, and the forest cover on the intensively used camp ground areas around the Tuolumne meadows is now threatened.

PINE NEEDLE SCALE (Chionaspis pinifoliae Fitch)

New York. R. E. Horsey (February 25): The live, purplish eggs of the pine needle scale are now to be found under the overwintering scale on mugho pine at Rochester. There is no evidence of winter mortality. This scale is well established at Rochester, and is fairly common on mugho, Austrian, and Scotch pine.

Nebraska. M. H. Swenk (February 19): Reports of spruce trees being attacked by the pine leaf scale were received from Phelps and Sioux Counties on January 10 and February 14, respectively.

I N S E C T S A F F E C T I N G G R E E N H O U S E

A N D O R N A M E N T A L P L A N T S

AZALEA

COMMON RED SPIDER (Tetranychus telarius L.)

Louisiana. W. E. Hinds (February 25): Red spiders were very abundant on many plants before the January freeze. Most adults and nymphs appeared to have been killed by the freeze, but eggs were not killed. During the past month eggs have hatched and produced a fairly heavy infestation, especially on azaleas.

BAMBOO

BAMBOO SCALE (Asterolecanium bambusae Bdv.)

Mississippi. C. Lyle (February 23): A medium infestation on bamboo was reported from Biloxi, in Harrison County, on January 2.

DEODAR

DEODAR WEEVIL (Pissodes deodarae Hopk.)

Mississippi. C. Lyle (February 23): Inspector M. L. Grimes reports light to medium injury to Cedrus deodara at Meridian.

EUONYMUS

EUONYMUS SCALE (Chionaspis euonymi Comst.)

North Carolina. Z. P. Metcalf (February 15): Euonymus scale is reported as especially abundant in the eastern half of the State.

Mississippi. C. Lyle (February 23): Euonymus twigs heavily infested have been received recently from Greenville, in Washington County, and Lambert, in Quitman County.

GLADIOLUS

GLADIOLUS THRIPS (Taeniothrips gladioli M. & S.)

Florida. J. R. Watson (February 27): The gladiolus thrips is doing serious damage in some plantations in the southern part of the State.

LILAC

OYSTER-SHELL SCALE (Lepidosaphes ulmi L.)

New York. R. E. Horsey (February 25): Live eggs under scales on lilac have been observed at Rochester. I doubt if there will be many eggs killed by cold weather. This scale is quite common on lilac and ash, except where plantings are watched and sprayed.

PRIVET

WHITE PEACH SCALE (Aulacaspis pentagona Targ.)

Mississippi. C. Lyle (February 23): On January 17 a correspondent at Fayette, in Jefferson County, sent to this office privet twigs showing a heavy infestation.

SUMAC

A PSYLLID (Calophya flavida Schwarz)

New York. R. E. Horsey (February 25): The blackish, scalelike overwintering young are alive and quite common on a number of smooth and shining sumac (Rhus glabra and R. copallina). One- and two-year-old twigs in many instances are well spotted with the black dots; and while the damage is not evident and the shrubs are growing well, these psyllids must be quite a drain on the plants.

VIRGINIA CREEPER

A LEAFHOPPER (Erythroneura comes ziczac Walsh)

Utah. G. F. Knowlton (February 13): This leafhopper is active on warm afternoons at Logan.

I N S E C T S A T T A C K I N G M A N A N D

D O M E S T I C A N I M A L S

MAN

BLACK WIDOW SPIDER (Latrodectus mactans Fab.)

Mississippi. C. Lyle (February 23): On February 7 a correspondent at Ruleville sent specimens with a report that he had recently found five of these spiders in his plant bed.

Nebraska. M. H. Swenk (December 20 to February 19): Specimens of the black widow spider were received on January 8 and February 14 from Antelope and Furnas Counties, respectively.

CATTLE

COMMON CATTLE GRUB (Hypoderma lineatum DeVill.)

Mississippi. C. Lyle (February 23): In December a correspondent at Perkinston sent specimens taken from the back of a cow; early in January specimens taken from a mule were sent from Winona.

Kansas. H. R. Bryson (February 26): This cattle grub is abundant in the northwestern corner of the State.

SCREW WORMS (Cochliomyia spp.)

Mississippi. C. Lyle (February 23): Reports of infestations of the screw worm were received from various sections of southern Mississippi at intervals throughout the winter.

A BUFFALO GNAT (Simulium sp.)

Mississippi. D. W. Grimes (February 22): A few buffalo gnats were observed at Hoffman.

LONG-NOSED OX LOUSE (Linognathus vituli L.)

Nebraska. M. H. Swenk (January 15): A Kearney County correspondent reported that his calves were infested with long-nosed cattle lice.

HORSES

BROWN WINTER TICK (Dermacentor nigrolineatus Pack.)

Mississippi. C. Lyle (February 23): A correspondent at Okolona recently sent to this office specimens taken from a horse.

SWINE

HOG MANGE MITE (Sarcoptes scabiei suis DeG.)

Nebraska. M. H. Swenk (January 12): A request for information on dipping hogs for mange was received from Holt County.

H O U S E H O L D A N D S T O R E D - P R O D U C T S I N S E C T S

TERMITES (Reticulitermes spp.)

West Virginia. L. M. Peairs (March 2): Winged termites were issuing in houses in Morgantown between February 16 and March 1.

North Carolina. Z. P. Metcalf (February 15): Flights of termites were reported on several days in January and February, indicating that these insects will perhaps be very destructive during the coming season.

Alabama. J. M. Robinson (February 14): Termites are reported damaging buildings in Prattville and Montgomery.

Mississippi. C. Lyle (February 23): During the fall and winter more than 30 complaints regarding termite injury to houses were received from various sections of the State.

Louisiana. W. E. Hinds (February 25): Termites are very abundant in old cornstalks in some localities; winged forms are numerous and ready to swarm. They are infesting buildings and have been swarming at Baton Rouge since about the first week of February. The flights became very common as the weather cleared following a week in which light rains occurred daily.

Nebraska. M. H. Swenk (February): R. tibialis Bks. was reported as severely damaging a grain elevator in Douglas County about the middle of February.

Kansas. H. P. Bryson (February 23): The first termite swarm was observed on February 21 at Manhattan.

ANTS (Formicidae)

Mississippi. M. R. Smith (February 22): Ants collected near Agricola were sent to me with the following report: "The ants build mounds as large as half bushel measures or larger, giving the appearance of a number of bee hives scattered around. These mounds are literally full of ants. The ants were first noticed about 4 or 5 years ago. They are very troublesome at the time cows are calving." This ant is an introduced species of South American fire ant, Solenopsis saevissima var. richteri Forel. and is not known from any other locality in the United

States except Mobile and several towns in that vicinity. The fire ant, S. xyloni MacCook, has been active almost the entire winter except for a very severe cold spell of about a week's duration when the temperature dropped to 10° F. An examination of a large number of nests on a western slope at State College following this freeze showed that the ants suffered a mortality ranging from about 10 to 40 percent of the entire colony. In other locations the colonies showed practically no mortality. A correspondent at Shelby sent to us specimens of Pharaoh's ant (Monomorium pharaonis L.) with the remark that the ants had been very troublesome in his house for about a year. Specimens were also received from Tupelo, Waynesboro, and Blue Mountain with complaints that they were very annoying. New infestations of the Argentine ant (Iridomyrmex humilis Mayr) have been recorded from Noxapater and Hiwannee.

Texas. M. R. Smith (February 22): In January ants from George West, in Live Oak County, were sent in with the report that they were injuring cotton. The ants proved to be Pheidole desertorum var. comanche Whlr.

BOXELDER BUG (Leptocoris trivittatus Say)

Kansas. H. R. Bryson (February 26): Fewer reports of annoyance have been received this year than for many years.

Utah. G. F. Knowlton (February 13): Boxelder bugs are causing annoyance in homes and school buildings in various parts of northern Utah.

FIG MOTH (Ephestia figulilella Greg.)

California. H. C. Donohoe (February 11): A survey of storage plants receiving dried fruits from the Sacramento Valley indicates that the infestation in dried fruits from growers last fall was the greatest ever experienced in this district.

CHOCOLATE MOTH (Ephestia elutella Hbn.)

California. H. C. Donohoe (February 11): Small numbers of adults were collected in dried fruit storage plants at Oakland, Napa, and Yuba City during the first week in February. The moth was commonly encountered in field and dried fruit storages in the San Joaquin Valley.

DRIED FRUIT MOTH (Vitula serratilineella Rag.)

California. H. C. Donohoe (February 11): This insect was found in small numbers in dried fruit storages in San Jose, Oakland, Berkeley, and Napa the first week in February.

INDIAN-MEAL MOTH (Plodia interpunctella Hbn.)

California. H. C. Donohoe (February 11): Infestation ranged from slight to heavy in stored prunes in San Jose the first week in February.

Throughout the San Francisco Bay and Sacramento Valley areas all dried fruit storage plants visited were infested.

A PYRALID (Aphomia gularis Zell.)

California. H. C. Donohoe (February 11): Damage to stored prunes from Santa Clara Valley, stored in Oakland and San Jose, ranged in late fall from slight to severe. The moth was found in small numbers in the storage houses the first week in February.

RICE WEEVIL (Sitophilus oryzae L.)

Louisiana. W. E. Hinds (February 25): Black weevils are less common than usual in old cornstalks in the fields. However, the cold was not sufficiently severe to check their breeding and survival in corncribs and rice warehouses where they are normally abundant.

CIGARETTE BEETLE (Lasioderma serricorne Fab.)

Nebraska. M. H. Swenk (January 2): Specimens of the cigarette beetle were sent in from Merrick County, where they had been taken from the upholstering of a parlor suite.

PEA WEEVIL (Bruchus pisorum L.)

Idaho. C. Wakeland (February 20): T. A. Brindley, who is stationed at Moscow working on the pea weevil, had many cages containing living weevils exposed in various situations. He finds that mortality of weevils was almost complete in cages, but that there is a heavy percentage of survival beneath the bark of ponderosa pine trees.